

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

**IN RE METHYL TERTIARY BUTYL ETHER
PRODUCTS LIABILITY LITIGATION**

This document relates to:

City of New York v. Amerada Hess Corporation, et al.,
No. 04 Civ. 3417 (SAS)

Master File No. 1:00-1898
MDL 1358 (SAS)
M21-88

**DECLARATION OF LAUREN HANDEL IN SUPPORT OF
DEFENDANTS' OPPOSITION TO PLAINTIFF'S MOTION *IN LIMINE* NO. 2 TO
EXCLUDE EVIDENCE OR ARGUMENT THAT FEDERAL AGENCIES ENDORSED OR
APPROVED THE USE OF MTBE IN GASOLINE**

Lauren Handel, an attorney duly admitted to practice law in the State of New York and in this Court, hereby declares under penalty of perjury:

1. I am an attorney with the law firm of McDermott Will & Emery LLP, counsel for the Exxon Mobil Defendants in the above-captioned matter. I submit this Declaration in support of Defendants' Opposition to Plaintiff's Motion *In Limine* No. 2 to Exclude Evidence or Argument that Federal Agencies Endorsed or Approved the Use of MTBE in Gasoline (hereinafter "Opposition"). This Declaration authenticates the exhibits attached hereto and relied on in support of the Opposition. In accordance with this Court's Individual Rules and Procedures, the exhibits have been excerpted to include only the relevant material. Copies of each of the exhibits appended hereto were made at my direction on or around May 26, 2009.

2. Attached hereto as Exhibit A is a true and correct copy of Excerpts from the U.S. Environmental Protection Agency's Final Regulatory Impact Analysis for Reformulated Gasoline (Dec. 1993).

3. Attached hereto as Exhibit B is a true and correct copy of letters from Northeast States to EPA, 1987, responding to EPA's request for information on the incidence of MTBE detections in ground water and drinking water.

Dated: New York, NY
May 26, 2009

Respectfully submitted,

/s/ Lauren Handel
Lauren Handel

EXHIBIT A



EPA420-R-93-017
December 1993

Final Regulatory Impact Analysis for Reformulated Gasoline

Office of Mobile Sources
U.S. Environmental Protection Agency

Some commenters claimed that if ethanol was unable to maintain a large market share during the summer months, that it would become uneconomical to use during the winter months as well. They believed refiners would be unwilling to switch off between various oxygenates. This belief, however, appears to be unfounded. First of all, it is based on the invalid assumption that ethanol will have no market either in the RFG program or in conventional fuel areas during the summer months. Secondly, contrary to the intent of various refiners to blend ethanol as stated in their comments, it assumes no refiners would enter into long term contracts to blend ethanol, and third, it ignores the fact that refiners have been willing to switch off between oxygenates in the past. During the 1992-3 oxygenated fuels program refiners blended ethanol during the winter and then switched back to conventional gasoline during the summer. Furthermore, many refiners switched between oxygenates during the winter period as well based on the local economic conditions. Ethanol and MTBE producers alike were able to produce and store adequate oxygenate to meet the peak demand during the winter months. In addition, contrary to the commenter's belief, it could be argued that it is easier for ethanol blends to tolerate an interrupted market than MTBE blends. The nature of ethanol production is that it could be reduced during the summer by optimizing on plant production of corn sweeteners which are in high demand during the summer. As a result, while ethanol production may be reduced in lieu of reducing its price to maintain market share, the ethanol production plant may be able to maintain full operating capacity. Methanol used to produce MTBE has no other compensating market during the winter and is forced to either reduce its price to maintain market share, rely on storage, or shut down production. Since the winter period when ethanol is at an economic advantage is longer than the summer period when MTBE may be at an economic advantage, ethanol should have less of a burden. In fact, some of the statements made supporting the claim that ethanol would be excluded from the RFG market: inadequate tankage for multi-grades of fuel, inability of refiners to switch off between oxygenates, etc., are equally applicable if not more so to MTBE. Furthermore, using ethanol to produce ETBE during the summer when ETBE's other advantages have value could be a viable means of maintaining ethanol production year-round.

None of the comments received provided any data, information, or analyses to support the statements being made. As a result, EPA stands behind its analysis and belief that ethanol is fully capable of competing in the reformulated gasoline market either as gasohol or as an ether feedstock. This is particularly the case during the initial years of the reformulated gasoline program when ethanol will have to play a strong role due to the demand for oxygenates under the program which cannot be met through the use of MTBE alone. This belief was echoed by a variety of other commenters.

A. Congressional Intent

A number of comments were received stating that it was the intent of Congress in the Clean Air Act (CAA) that ethanol be included in the reformulated gasoline program and that the April 16, 1992 proposal by EPA violated that intent by discriminating against ethanol.

Congressional intent in establishing the reformulated gasoline program can best be learned from the text of the statute and the legislative history. A review of the terms of section 211(k) makes clear that the central, overriding purpose of this provision was the achievement of significant reductions in ozone forming VOCs and toxic air pollutants in the major metropolitan areas confronted with the most severe air pollution problems. Section 211(k)(1) establishes this as the central focus of this program, mandating that EPA require the greatest achievable reductions in these pollutants, considering various factors such as cost, air quality and other impacts. In addition to this broad expression of intent, Congress specified certain minimum elements of the reformulated gasoline program. Section

Appendix I.B. Relative Economics of Oxygenates in RFG

Historically, oxygenates (primarily ethanol) have been used as fuel extenders or more recently as octane enhancers. With the advent of the oxygenated fuels program to control wintertime carbon monoxide emissions and the reformulated gasoline program to control summer ozone, oxygenates now have value for other purposes, as well.

First, the addition of an oxygenate to gasoline impacts the Reid vapor pressure (RVP) of the blend. Since Phase I reformulated gasoline (RFG) has restrictions on RVP, and Phase II RFG requires significant reductions in VOC emissions that will likely require further reductions in RVP, the impact of oxygenates on the RVP of the blend is an important factor to consider.

Second, oxygenates are high in octane, and thus enhance the octane of the finished gasoline. Since other means of providing octane, such as the addition of aromatics, are costly and often have negative consequences for emissions, oxygenates are valuable for their role as octane enhancers.

Finally, in the context of an oxygen content requirement such as exists in the RFG requirement for 2.1 wt% oxygen (on average), oxygenates are valued for their oxygen content.

The relative costs of three major oxygenates, ethanol, MTBE, and ETBE, have been compared based on their purchase prices and their values as fuel extenders, RVP modifiers, octane enhancers, and oxygen sources. Since MTBE is believed to be the oxygenate likely to be used in reformulated gasoline in the largest volumes (given the current market conditions), the costs of ETBE and ethanol have been compared relative to the cost of MTBE.²⁴

The purchase price of the oxygenates was determined from the spot market prices or reasonable assumptions about their costs. The price of MTBE was estimated to be \$0.70 per gallon, based on the recent (1993) spot prices reported in trade press publications such as *Octane Week* and *Oxy-Fuel News*. The price of ethanol was assumed to be \$1.20 per gallon, the typical price over much of 1993. (See below for further discussion of the price of ethanol.) The purchase price of ETBE (\$1.01/gallon) was estimated from the price of MTBE, assuming ethanol is purchased at \$1.20 per gallon and the capital and operating costs for ETBE production are slightly higher (5% and 10%, respectively) than for MTBE since somewhat large equipment is necessary to process the same volume of isobutylene into ETBE. The cost per gallon of isobutylene was assumed to be equivalent for both ethers.

The value of the oxygenates as a fuel extender was based on the recent spot market price of unleaded regular gasoline at the U.S. gulf coast (around \$0.50/gallon). Since the analysis was performed on the basis of the relative cost per gallon of each oxygenate, the oxygenates have equivalent values as fuel extenders and thus the magnitude of the value assumed for the gasoline displaced is unimportant.

The values of the oxygenates as octane enhancers, oxygen additives, and RVP modifiers were estimated based on market trends and on the results of the refinery modelling used to develop costs for Phase II RFG. It was assumed

²⁴ETBE like MTBE can be added at the refinery. While it shows promise for the future, ETBE has not been widely used in the market to date. Ethanol blends cannot travel through petroleum pipelines and thus ethanol is blended at the distribution terminal.

EXHIBIT B



NEW MEXICO
HEALTH AND ENVIRONMENT
DEPARTMENT

Post Office Box 968
Santa Fe, New Mexico 87504-0968

ENVIRONMENTAL IMPROVEMENT DIVISION

Michael J. Burkhart **CONTAINS NO CBI**
Director

GARREY CARRUTHERS
Governor

LARRY GORDON
Secretary

CARAL MUTH
Deputy Secretary

FYI-OTS-0987-0574 Supp.
84-870000196 Sequence D

8 EPA-OTB

000048938U

September 11, 1987

Dr. Beth Anderson, Project Manager
Test Rules Development Branch
Office of Pesticides and Toxic Substances
U.S. Environmental Protection Agency
Washington, D.C. 20460

Dear Beth:

Thank you very much for sending me recent materials on MTBE. Enclosed are the lab forms confirming MTBE ground-water contamination in New Mexico. The Hertzler and Velarde Post Office wells serve 4 and 3 persons respectively. The Hertzler well is still being used for drinking water supply; the Velarde Post Office well is not. Also enclosed is an abstract on cosolvency effects that I submitted for the American Geophysical Union fall meeting.

Please continue to send me new information on MTBE. The state of New Mexico is considering the development of a ground-water standard for MTBE. I will keep you informed of our monitoring results.

Sincerely,

Dennis McQuillan
Dennis McQuillan, Geologist
Ground Water Bureau

EQUAL OPPORTUNITY EMPLOYER

MMTBE0025728

XOM-REM-00038439

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



FYI-OTS-0987-0574 Seq. F

September 17, 1987

84-870000201

SUPP.

8 EPA-OTS

0000309046

Mr. Arnie Edelman (TS-799)
OTS TSCA Assistance Office
U.S. EPA
401 M. Street, S.W.
Washington, D.C. 20460

CONTAINS NO CBI

RE: Methyl-tert-butyl-ether

Dear Mr. Edelman,

In response to the request from EPA for monitoring data and reports of incidents of MTBE contamination, I have prepared the enclosed table which identifies the locations in Connecticut where we have found groundwater contaminated with MTBE. Our laboratory has been able to identify and quantify MTBE only since July 1987. Therefore, based on the number of known incidents of groundwater contaminated with gasoline, we can expect to see more incidents of MTBE contamination in the future.

Please contact me at 203-566-7295 if you would like any additional information concerning these sites.

Sincerely,

Nacmi Davidson

Nacmi Davidson
Senior Environmental Analyst
WATER COMPLIANCE UNIT

encl.

cc: Carolyn Jean Dupuy
Antoinette Mason

ND/mz

Phone:
165 Capitol Avenue • Hartford, Connecticut 06106
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MMTBE0025730

XOM-REM-00038441

INCIDENTS OF CONTAMINATION WITH MTBE

<u>TOWN</u>	<u>APPROXIMATE NUMBER OF PEOPLE AFFECTED</u>	<u>RANGE OF MTBE CONCENTRATION (ug/l)</u>
Ashford	15	34.0 - 3800
Danbury	14	9.5 - 3200
Groton	27	7750
Old Saybrook	8	6.9 - 24
Shelton	2	120
Shelton	20	12 - 1100

All samples were collected and analyzed after June 1987.

MMTBE0025731

XOM-REM-00038442

FYI-OTS-0987-0574

SUPP.

Sequence B

84-870000189

John E. C.
Commissioner



STATE OF MAINE
DEPARTMENT OF HUMAN SERVICES
ALBION, MAINE
PUBLIC HEALTH LABORATORY
STATE HOUSE STATION 12

September 3, 1987

CONTAINS NO C81
8 SPA-OTS
000048807R

Arnie Edelman (TS-799)
OTS TSCA Assistance Office
U. S. Environmental Protection Agency
401 M Street, S. W.
Washington, D.C. 20460

Dear Mr. Edelman:

I am writing in response to your request for information on the incidence of methyl-tert-butyl-ether (MTBE).

As a chemist at the Maine Public Health Laboratory, I analyze drinking water samples for hydrocarbons. Analyzing MTBE has been included as part of our hydrocarbon screen test for the past two years. We analyze approximately 160 samples monthly. These include samples submitted by private individuals and samples from residences in which charcoal filter systems are being monitored. The majority of these filters were installed because of contamination from underground leaking storage tanks.

I have encountered samples contaminated with MTBE and gasoline as well as MTBE alone. Approximately three percent of all samples tested contain MTBE alone. Concentrations detected range from 20 parts per billion (ppb) (our reportable detection limit) to 236,000 ppb. The majority of samples containing gasoline contain some amount of MTBE.

I hope this information is helpful.

Sincerely,

Theresa Zibura

Theresa Zibura
Chemist
Water Laboratory

TZ:deb

cc: Richard L. French

MMTBEO0025736

XOM-REM-00038447



STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH SERVICES

M. Mary Mongan
Commissioner

William T. Wallace, Jr., M.D., M.P.H.
Director
Division of Public Health Services

Health & Welfare Bldg.
6 Hazen Drive
Concord, NH 03301-6527
Tel. (603) 271-

Document Control Officer
(TS-/90)
Attn: FYI Coordinator
U.S. EPA
Washington, D.C. 20460

Dear Sir/Madam:

We were requested by Terry O'Brien of the Office of Toxic Substances to provide him with a summary of the detection of methyl t-butyl ether (MTBE) in water samples from the State of New Hampshire. In response, we have enclosed a frequency distribution of MTBE-contaminated water samples from June 1, 1986 to September 15, 1987.

If you or Mr. O'Brien require additional information on the detection of MTBE in water samples in New Hampshire, feel free to contact me or Amy Juchatz, State Toxicologist, at (603) 271-4664.

Sincerely,

Jeffrey S. Smith
Environmentalist
Environmental Health
Risk Assessment Unit
N.H. Division of Public Health

JSS/dkl/BB06j
cc: Ken Teague, WSPCD
Brad Foster, WSPCD



MMTBE0025737

XOM-REM-00038448

Frequency Distribution of Methyl t-Butyl Ether
Contamination of Water Samples
June 1, 1986 - September 15, 1987

<u>Concentration Range (ppb)</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Cumulative %</u>
0-100	145	145	82
101-200	7	152	86
201-300	5	157	89
301-400	1	158	90
401-500	1	159	90
501-600	2	161	91
601-700	3	164	93
701-800	1	165	94
801-900	0	165	94
901-1000	0	165	94
1001-2000	3	168	95
2001-3000	2	170	97
3001-4000	2	172	98
4001-5000	0	172	98
5001 +	4	176	100
Total	176		

Maximum reported as > 10,000 ppb

91026

MMTBE0025738

XOM-REM-00038449